

**REMARKS**

The foregoing amendments and these remarks are in response to the Office Action dated July 9, 2009. Applicant hereby requests a three month extension of time for filing this response. Authorization is given to charge the appropriate fees to Deposit Account No. 50-0951.

At the time of the Office Action, claims 1-7 were pending. In the Office Action, claims 3-5 were rejected under 35 U.S.C. §102(a) and §103(a). Claim 7 was rejected under 35 U.S.C. §103(a). Claims 1-7 were rejected on the ground of non-statutory obviousness-type double patenting. The rejections are discussed in more detail below.

**I. Rejections based upon art**

Claims 3-6 were rejected under 35 U.S.C. §102(a) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as being obvious over EP 1 236 505 to Filippi et al. (hereafter "*Filippi*"). Claim 7 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Filippi* as applied to claim 3, and further in view of U.S. Patent No. 4,769,220 to Zardi ("*Zardi*").

Applicant has amended claim 3 to define a reactor incorporating the features of previous claims 3-7. Claims 4-7 are cancelled herein. In amended claim 3, the holes formed in the carter of the distribution-supplier advantageously make the second chamber of the heat exchanger in fluid communication with the outside of the exchanger itself, i.e. with the catalytic mass. In other words, according to the claim it is possible to feed at least part of the reactants into the catalyst mass through the second chamber of the heat exchanger, the duct defined between the wall of the exchanger and the carter, and finally through the holes formed in said carter (see for instance figure 2). In this way it is possible to distribute the feeding of the reactants at different points of the catalytic mass corresponding to different successive stages of the reaction which takes place in the catalytic bed at respective different predetermined temperatures and flow-rates, thus carrying out the method of claim 1. It follows that the claimed reactor differs from the cited prior for the same reasons as explained with respect to the allowable method claim 1 and therefore the arguments set forth in Applicants' previous response should apply equally to amended claim 3.

On the contrary, the apparatus disclosed and taught in *Filippi* provides for a carter without holes, the latter being only defined on the wall of the heat exchanger itself so as to put in fluid communication the carter with the internal of the exchanger (see for instance figures 1-5). No fluid

communication between any chamber of the exchanger and the catalyst mass is possible or suggested with the apparatus according to *Filippi*. In this respect the arguments set forth at page 3, point 5 of the Office Action are traversed as being the result of an erroneous analysis of *Filippi*.

For at least the above reasons, it is submitted that the subject matter of amended claim 1 is not anticipated by nor rendered obvious by the cited prior art, and is therefore patentable. The dependent claims are also believed allowable because of their dependence upon an allowable base claim, and because of the further features recited.

## **II. Double Patenting Rejection**

Claims 3-7 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3 of copending Application No. 11/572,403 to Filippi et al. ("Filippi '403"). Claims 1-7 were rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 7,186,389 in view of Filippi ("Filippi '389"). Claims 1-6 were rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 7,087,205 to Filippi et al. ("Filippi '205").

The provisional rejection of claims 3-7 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3 of Filippi '403 is traversed in view of the amended reactor claim 3. In particular, none of the features related to the claimed distributor-supplier is present in the copending application.

The rejection of claims 1-7 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-10 of Filippi '389 is also traversed, as no feeding of the reactants within the catalytic mass at different points thereof is disclosed or suggested by Filippi '389. The latter document merely concerns the feeding of heat exchange operating fluid within a tubular heat exchanger. Analogously to Filippi '205, no fluid communication between the internal of the heat exchanger and the catalyst mass is possible or suggested with the apparatus according to Filippi '389.

Filippi '205 is the U.S. equivalent of EP 1 236 505 (*Filippi*) cited above in the rejections under 35 U.S.C. §§102 and 103. The rejection of claims 1-6 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of Filippi '205 is thus

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traversed for the same reasons as explained above in connection with the corresponding document *Filippi* (EP 1 236 505). *Filippi* '205 discloses and teaches a method that has nothing to do with the claimed method since no feeding of the reactants within the catalytic mass at different points thereof is disclosed or suggested by *Filippi* '205. The latter document merely concerns the feeding of a heat exchange operating fluid within the heat exchanger.

### III. Conclusion

Applicants have made every effort to present claims which distinguish over the prior art, and it is thus believed that all claims are in condition for allowance. Nevertheless, Applicants invite the Examiner to call the undersigned if it is believed that a telephonic interview would expedite the prosecution of the application to an allowance. In view of the foregoing remarks, Applicants respectfully request reconsideration and prompt allowance of the pending claims.

Respectfully submitted,

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